

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
16 June 2005 (16.06.2005)

PCT

(10) International Publication Number  
**WO 2005/054555 A1**

(51) International Patent Classification: **D03D 15/00**

(21) International Application Number:  
PCT/KR2004/002483

(22) International Filing Date:  
24 September 2004 (24.09.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:  
10-2003-0086674  
2 December 2003 (02.12.2003) KR

(71) Applicants (for all designated States except US): **DAEGO CO., LTD.** [KR/KR]; Dongil Techno Town C-3705, 889-1, Kwanyang 2-dong, Dongan-gu, Anyang-shi, Kyungki-do, 431-060 (KR). **3M INNOVATIVE PROPERTIES COMPANY** [US/US]; 3M Center, P.O.Box 33427, St. Paul, , Minnesota 55133-3427 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HONG, Kyung Jack** [KR/KR]; Mokryun Apt.806-104, 1053-4(16-2), Hoge-dong, Dongan-gu, Anyang-shi, Kyungki-do 431-080 (KR).

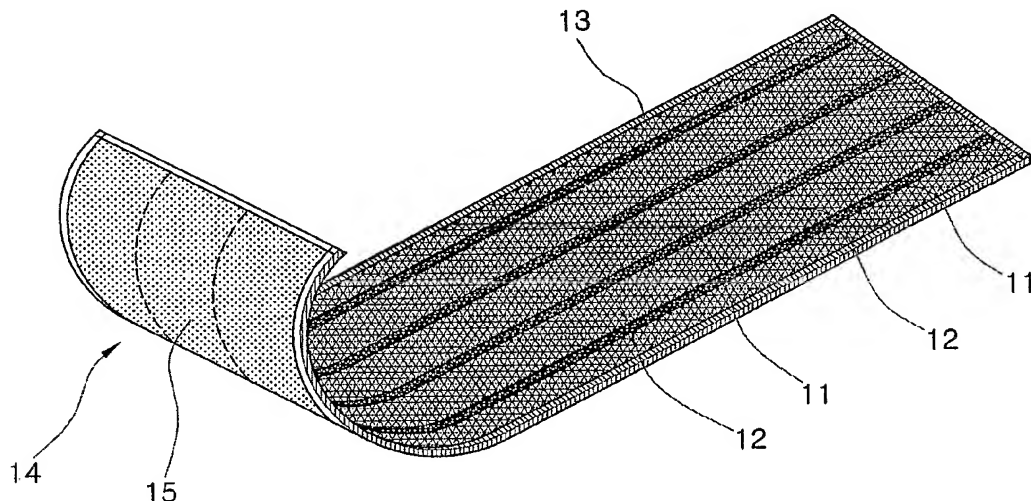
(74) Agent: **SHIN, Dongjoon**; No.402, Seocho First Bldg., 1624-2, Seocho-dong, Seocho-gu, Seoul 137-878 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: FABRICS HAVING STIFF FIBERS AND HIGH-ABSORBABLE FIBERS ARRANGED ALTERNATIVELY AND MOP THEREOF



(57) Abstract: The present invention relates to a fabric having stiff fibers and high-absorbable fibers alternatively arranged, in which said stiff fibers of polypropylene, polyethylene and the like, said high-absorbable fibers of polyester microfibers, polyester-nylon composite microfibers and the like having a size of 1.0 denier or less are weaved/knitted and processed according to a known method such as circular-knitting, weaving or tufting, in such a manner that a stiff fiber region of aggregated stiff fibers and a super-absorbent fiber region of aggregated high-absorbable fibers are alternatively arranged. By the fabric, it is possible to perform sweeping and wiping at the same time upon the cleaning of an indoor place. Also, it relates to a mop cloth for indoor cleaning comprising a fabric with stiff fibers and high-absorbable fibers alternatively arranged and a sheet with a Velcro tape formed on one surface thereof to be laminated on the fabric, in which the fabric and the sheet are joined by a finishing treatment such as overlocking or stitching. The mop cloth can be more rapidly attached to a holder connected to an end of a mop stick by a hinge or detached therefrom.

WO 2005/054555 A1



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

— *with international search report*